Hanford 100 Areas

Reactors End State Alternatives

Cocoon - Leave in Place

Before

After

- Demolish facility down to the thick concrete walls surrounding the reactor block
- Seal all openings and penetrations
- Construct a new roof enclosure
- Install remote monitoring equipment
- Interim safe storage period, estimated at 75 years, allows time for Cobalt 60 decay

Issues

- Federal commitment to maintaining cocooned reactor into perpetuity? Which agency?
- Long-term protection of human health and the environment
- Compliance with applicable laws (i.e. CERCLA)
- Economic impact
- Land use impact

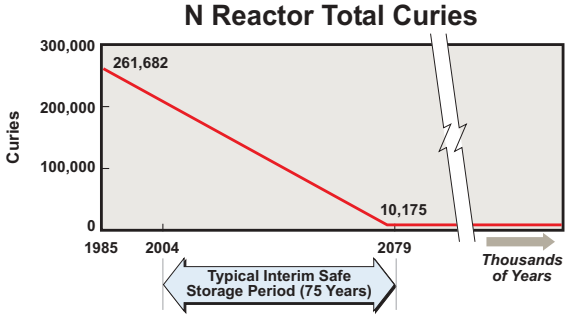
Move Reactor Block to The Central Plateau...

Now, or at the end of interim storage period?

One piece removal transport sequence, another option (*not shown*) is dismantlement and disposal

Obstacles to overcome

- Dose to workers
- Technology gap
- Funding for removal is not in the current EM lifecycle baseline



Note: N Reactor was the last to be deactivated. The dose data shown here is the most current/most conservative estimate. The other reactors have less inventory.

Decision Drivers...

- *M-93-25 "Submit Engineering Evaluation of Final Reactor Disposition to EPA/Ecology" by 9/30/06*
- *C-16-06E "Complete Final Configuration Determination for B Reactor and Submit Recommendation to EPA" by 9/30/05*